GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 28, 2005, 16:54:57 ; Search time 40 Seconds
(without alignments)
626.705 Million cell updates/sec

Title: US-10-048-071-28
Perfect score: 1863
Sequence: 1 MIQFSINRTLFIHALNTTKR.....LTPGDEEESFIQLITPVRTN 378

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 478139 seqs, 66318000 residues

Total number of hits satisfying chosen parameters: 478139

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1389	74.6	378	4	US-09-583-110-4405	Sequence 4405, Ap
2	863.5	46.3	384	4	US-09-107-532A-4556	Sequence 4556, Ap
3	748.5	40.2	385	3	US-09-134-001C-5166	Sequence 5166, Ap
4	431	23.1	181	4	US-09-134-000C-5039	Sequence 5039, Ap
5	350.5	18.8	368	4	US-09-252-991A-18904	Sequence 18904, A
6	315	16.9	383	4	US-09-328-352-5969	Sequence 5969, Ap
7	313	16.8	374	4	US-09-489-039A-10579	Sequence 10579, A
8	307	16.5	375	4	US-09-543-681A-7400	Sequence 7400, Ap
9	249.5	13.4	375	4	US-09-818-780-23	Sequence 23, Appl
10	232	12.5	303	4	US-09-198-452A-357	Sequence 357, App
11	131.5	7.1	141	4	US-09-134-000C-5040	Sequence 5040, Ap
12	117.5	6.3	977	4	US-09-248-796A-15579	Sequence 15579, A
13	115.5	6.2	800	3	US-08-776-265-3	Sequence 3, Appli
14	115.5	6.2	800	4	US-09-398-184-3	Sequence 3, Appli
15	114.5	6.1	823	4	US-09-248-796A-16699	Sequence 16699, A
16	113.5	6.1	922	4	US-09-883-134-9	Sequence 9, Appli
17	112.5	6.0	470	4	US-09-248-796A-23131	Sequence 23131, A
18	112.5	6.0	619	3	US-09-066-046-2	Sequence 2, Appli
19	109.5	5.9	1753	4	US-09-248-796A-19154	Sequence 19154, A
20	109	5.9	532	4	US-09-710-279-546	Sequence 546, App
21	107.5	5.8	569	4	US-09-248-796A-16697	Sequence 16697, A
22	107	5.7	563	3	US-09-134-001C-3172	Sequence 3172, Ap
23	106.5	5.7	1155	4	US-09-543-681A-6286	Sequence 6286, Ap
24	104.5	5.6	1726	4	US-09-700-227-2	Sequence 2, Appli
25	103.5	5.6	564	4	US-09-107-532A-5248	Sequence 5248, Ap
26	103.5	5.6	920	4	US-09-463-402-6	Sequence 6, Appli
27	103.5	5.6	921	4	US-09-889-572-4	Sequence 4, Appli
28	103	5.5	1233	4	US-09-134-000C-4971	Sequence 4971, Ap
29	103	5.5	1416	4	US-09-071-035-404	Sequence 404, App
30	103	5.5	1448	4	US-09-071-035-402	Sequence 402, App
31	102.5	5.5	395	3	US-09-134-001C-5119	Sequence 5119, Ap
32	102.5	5.5	461	4	US-09-248-796A-23039	Sequence 23039, A
33	102	5.5	2366	1	US-08-480-604A-10	Sequence 10, Appl
34	102	5.5	2366	2	US-08-405-496A-10	Sequence 10, Appl
35	102	5.5	2366	3	US-08-915-136-10	Sequence 10, Appl
36	102	5.5	2366	3	US-08-957-310-10	Sequence 10, Appl
37	102	5.5	2366	4	US-10-011-366-10	Sequence 10, Appl
38	102	5.5	2366	4	US-09-084-517-10	Sequence 10, Appl
39	101.5	5.4	960	4	US-09-538-092-326	Sequence 326, App
40	101	5.4	385	4	US-09-543-681A-4674	Sequence 4674, Ap
41	100	5.4	666	4	US-09-134-000C-6159	Sequence 6159, Ap
42	99.5	5.3	380	4	US-09-248-796A-15552	Sequence 15552, A
43	99.5	5.3	512	3	US-08-856-253-6	Sequence 6, Appli
44	99.5	5.3	611	4	US-09-710-279-2586	Sequence 2586, Ap
45	99.5	5.3	910	4	US-09-134-000C-4677	Sequence 4677, Ap

ALIGNMENTS

RESULT 1
US-09-583-110-4405
; Sequence 4405, Application US/09583110
; Patent No. 6699703
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al.
; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
; FILE REFERENCE: PATH00-07A
; CURRENT APPLICATION NUMBER: US/09/583,110
; CURRENT FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5322
; SEQ ID NO 4405
; LENGTH: 378
; TYPE: PRT
; ORGANISM: Streptococcus pneumoniae
US-09-583-110-4405

Query Match 74.6%; Score 1389; DB 4; Length 378;
Best Local Similarity 72.2%; Pred. No. 6.7e-125;
Matches 273; Conservative 50; Mismatches 55; Indels 0; Gaps 0;

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Qy          1 MIQFSINRTLFIHALNTTKRAISTKNAIPILSSIKIEVTSTGVTLTGSNGQISIENTIPV 60
              || |||: ||: ||||||||||:||||||::||:||: |:|| ||||||||||
Db          1 MIHFSINKNLFLQALNTTKRAISSKNAIPILSTVKIDVTNEGITLIGSNGQISIENFISQ 60

Qy         61 SNENAGLLITSPGAILLEASFFINIISSLPDISINVKEIEQHQVVLTSGKSEITLKGKDV 120
               ||:||||||| |:||||||||||::|||||:::: |||||:|:|||||||||||||||
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Qy        121 DQYPRLQEVSTENPLILKTKLLKSIIAETAFAASLQESRPILTGVHIVLSNHKDFKAVAT 180
              :||||:||:|   ||||:||||| || ||||||| |||||||||||| ||| ||: | |||
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Qy        181 DSHRMSQRLITLDNTSADLMVVLPSKSLREFSAVFTDDIETVEVFFSPSQILFRSEHISF 240
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Db        181 DSHRLSQKKLTLEKNSDDFDVVIPSRSLREFSAVFTDDIETVEIFFANNQILFRSENISF 240

Qy        241 YTRLLEGNYPDTDRLLMTEFETEVVFNTQSLRHAMERAFLISNATQNGTVKLEITQNHIS 300
              |||||||||||||||: |:| | : ||  :|| :|||| |:|:|||||||||||    :|
Db        241 YTRLLEGNYPDTDRLIPTDFNTTITFNVVNLRQSMERARLLSSATQNGTVKLEIKDGVVS 300

Qy        301 AHVNSPEVGKVNEDLDIVSQSGSDLTISFNPTYLIESLKAIKSETVKIHFLSPVRPFTLT 360
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Qy        361 PGDEEESFIQLITPVRTN 378
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Db        361 PADTDEDFMQLITPVRTN 378


RESULT 2
US-09-107-532A-4556
; Sequence 4556, Application US/09107532A
; Patent No. 6583275
;   GENERAL INFORMATION:
;        APPLICANT: Lynn A Doucette-Stamm  and David Bush
;        TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
;                            ENTEROCOCCUS FAECIUM FOR DIAGNOSTICS AND THERAPEUTICS
;        NUMBER OF SEQUENCES: 7310
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: GENOME THERAPEUTICS CORPORATION
;             STREET: 100 Beaver Street
;             CITY: Waltham
;             STATE: Massachusetts
;             COUNTRY: USA
;             ZIP: 02354
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: CD/ROM ISO9660
;             COMPUTER: PC
;             OPERATING SYSTEM: <Unknown>
;             SOFTWARE: ASCII
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/107,532A
;             FILING DATE: 30-Jun-1998
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 60/085,598
;             FILING DATE: 14 May 1998
;             APPLICATION NUMBER: 60/051571
;             FILING DATE: July 2, 1997
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Ariniello, Pamela Deneke
;             REGISTRATION NUMBER: 40,489
;             REFERENCE/DOCKET NUMBER: GTC-012
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (781)893-5007
;             TELEFAX: (781)893-8277
;   INFORMATION FOR SEQ ID NO: 4556:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 384 amino acids
;             TYPE: amino acid
;             TOPOLOGY: linear
;        MOLECULE TYPE: protein
;        HYPOTHETICAL: YES
;        ORIGINAL SOURCE:
;             ORGANISM: Enterococcus faecium
;        FEATURE:
;             NAME/KEY:  misc_feature
;             LOCATION: (B) LOCATION 1...384
;        SEQUENCE DESCRIPTION: SEQ ID NO: 4556:
US-09-107-532A-4556

  Query Match             46.3%;  Score 863.5;  DB 4;  Length 384;
  Best Local Similarity   46.6%;  Pred. No. 2.1e-74;
  Matches  176;  Conservative   72;  Mismatches  129;  Indels    1;  Gaps    1;

Qy          1 MIQFSINRTLFIHALNTTKRAISTKNAIPILSSIKIEVTSTGVTLTGSNGQISIENTIPV 60
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Db          8 IMKVTLNRASFMQELQTVQRAISSKTTIPILTGVKITLTQEGLTLTGSNADISIETFLSV 67

Qy         61 SNENAGLLITSPGAILLEASFFINIISSLPDISINVKEIEQHQVVLTSGKSEITLKGKDV 120
               || | : | | |:|:|:| ||  ||  ||: :  :: :|  || :||||:   : | |
Db         68 ENEKANMQIESTGSIVLQARFFSEIIRRLPEETFTLEVLENKQVAITSGKANFIVNGLDA 127

Qy        121 QDQYPRLQEVSTENPLILKTKLLKSIIAETAFAASLQESRPILTGVHIVLSNHKDFKAVAT 180
             | | :| || || |  |||||||||| :||::    ||||
Db        128 ------------------------INETVFAVSQHESRPILTGVHFILSDN-SLLAVAT 166

Qy        181 DSHRMSQRLITLDNTSADLMVVLPSKSLREFSAVFTDDIETVEVFFSPSQILFRSEHISF 240
              ||||:|||:| ::  :    :|:| ||| | |   |:: | ||:    :|:||::| : |
Db        167 DSHRLSQRVIPVEQAADHFDIVIPGKSLIELSRSLTNEEEIVEISIMENQVLFKTETMYF 226

Qy        241 YTRLLEGNYPDTDRLLMTEFETEVVFNTQSLRHAMERAFLISNATQNGTVKLEITQNHIS 300
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Qy        301 AHVNSPEVGKVNEDLDIVSQSGSDLTISFNPTYLIESSLKAIKSETVKIHFLSPVRPFTLT 360
              : ||||:||| | |   : ||  | ||||| |:  :|:|    ::|: |:| :|||||
Db        287 LYGNSPEIGKVEESLSYTASSGDPLDISFNPDYMKAALRAFGDMSIKVKFISAIRPFTLE 346

Qy        361 PGDEEESFIQLITPVRTN 378
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Db        347 PTEDGVQFIQLITPVRTN 364


RESULT 3
US-09-134-001C-5166
; Sequence 5166, Application US/09134001C
; Patent No. 6380370
; GENERAL INFORMATION:
;  APPLICANT: Lynn Doucette-Stamm et al
;  TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
;  TITLE OF INVENTION:  EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
;  FILE REFERENCE: GTC-007
;  CURRENT APPLICATION NUMBER: US/09/134,001C
;  CURRENT FILING DATE:  1998-08-13
;  PRIOR APPLICATION NUMBER: US 60/064,964
;  PRIOR FILING DATE: 1997-11-08
;  PRIOR APPLICATION NUMBER: US 60/055,779
;  PRIOR FILING DATE: 1997-08-14
;  NUMBER OF SEQ ID NOS: 5674
; SEQ ID NO 5166
;   LENGTH: 385
;   TYPE: PRT
;   ORGANISM: Staphylococcus epidermidis
US-09-134-001C-5166

  Query Match             40.2%;  Score 748.5;  DB 3;  Length 385;
  Best Local Similarity   40.5%;  Pred. No. 2.4e-63;
  Matches  153;  Conservative   86;  Mismatches  136;  Indels    3;  Gaps    3;

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Qy         61 SNENAGLL-ITSPGAILLEASFFINIISSLPDISINVKEIEQHQVVLTSGKSEITLKGKD 119
                :   :: ||  |:::|   ||::||  ||   : :   || | ::||| ||  | | |
Db         69 QVDGEEIVEITETGSVVLPGRFFVDIIKKLPGKEVKLSTNEQFQTLITSGHSEFNLSGLD 128

Qy        120 VDQYPRLQEVSTENPLILKTKLLKSIIAETAFAASLQESRPILTGVHIVLSNHKDFKAVA 179
               |||| | ||| :: : |  |:||:|||:| || |  .|:||:||||: :: :: :    |
Db        129 PDQYPLLPEVSRDDAIQLSVKVLKNIIAQTNPAVSTSETRPVLTGVNWLIQDN-ELICTA 187

Qy        180 TDSHRMSQRLITLDNTSADLMVVLPSKSLREFSAVFTDDIETVEVFFSPSQILFRSEHIS 239
              |||||:: | : |:: | :  |::| |:| | : : :|  | :::||: :|:|||  :|:
Db        188 TDSHRLAVRKLQLEDESENKNVIIPGKALSELNKIMSDSDEDIDIFPASNQVLFRVGNIN 247

Qy        240 FYTRLLEGNYPDTDRLLMTEFETEVVFNTQSLRHAMERAFLISNATQNGTVKLEITQNHI 299
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Db        248 FISRLLEGHYPDTTRLFPENYEIKLGINNGDFYHAIDRASLLARERGGNNVIKLSTGNELV 307

Qy        300 SAHVNSPEVGKVNEDLDIVSQSGSDLTISFNPTYLIESLKAIKSETVKIHFLSPVRPFTL 359
                  |||:| | |:::     | :| ||||  |::::|||| :: |:: |   ::|| |
Db        308 ELSSTSPEIGTVKEEVNANDVEGGNLKISFNSKYMMDALKAIDNDEVEVEFFGTMKPFIL 367

Qy        360 TPGDEEESFIQLITPVRT 377
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Db        368 KPKD-DDSVTQLILPIRT 384
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Prior art for CTNF

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Run on: January 31, 2005, 10:52:07 ; Search time 85 Seconds
(without alignments)
9482.760 Million cell updates/sec

Title: US-10-048-071-27
Perfect score: 1134
Sequence: 1 atgattcaatttttcaattaa.....ttacaccagtacgaacaaac 1134

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_NA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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	1	849	74.9	3200	3	US-09-381-862-2	Sequence 2, Appli
	2	608.2	53.6	1137	4	US-09-583-110-1744	Sequence 1744, Ap
	3	608.2	53.6	21338	4	US-08-961-527-20	Sequence 20, Appl
	4	317	28.0	1155	4	US-09-107-532A-902	Sequence 902, App
	5	247.4	21.8	1158	3	US-09-134-001C-2329	Sequence 2329, Ap
	6	236.2	20.8	2347	4	US-08-956-171E-153	Sequence 153, App
	7	236.2	20.8	2347	4	US-08-781-986A-153	Sequence 153, App
	8	159.6	14.1	546	4	US-09-134-000C-1634	Sequence 1634, Ap
c	9	59.2	5.2	640681	4	US-09-790-988-1	Sequence 1, Appli
	10	57.2	5.0	1141	4	US-09-806-708B-22	Sequence 22, Appl
c	11	54.8	4.8	1141	4	US-09-806-708B-22	Sequence 22, Appl
	12	49.6	4.4	426	4	US-09-134-000C-1635	Sequence 1635, Ap
	13	49	4.3	640681	4	US-09-790-988-1	Sequence 1, Appli
c	14	47.4	4.2	14066	4	US-09-601-198-56	Sequence 56, Appl
	15	46.4	4.1	471	4	US-09-543-681A-1232	Sequence 1232, Ap
	16	45.8	4.0	751	4	US-08-956-171E-892	Sequence 892, App
	17	45.8	4.0	751	4	US-08-781-986A-892	Sequence 892, App
	18	45.6	4.0	832	4	US-09-621-976-2813	Sequence 2813, Ap
	19	45.4	4.0	821	3	US-08-998-416-541	Sequence 541, App
	20	45	4.0	1134	4	US-09-601-198-62	Sequence 62, Appl
	21	44.8	4.0	423	4	US-09-710-279-1771	Sequence 1771, Ap
	22	44.8	4.0	861	4	US-09-710-279-1145	Sequence 1145, Ap
	23	44.8	4.0	984	3	US-09-134-001C-2705	Sequence 2705, Ap
	24	44.8	4.0	3315	4	US-09-710-279-3820	Sequence 3820, Ap
c	25	44.8	4.0	3801	4	US-09-710-279-4271	Sequence 4271, Ap
c	26	44.8	4.0	3926	4	US-09-710-279-4300	Sequence 4300, Ap
	27	43.8	3.9	744	4	US-09-248-796A-778	Sequence 778, App
	28	43.4	3.8	15598	4	US-08-956-171E-82	Sequence 82, Appl
	29	43.4	3.8	15598	4	US-08-781-986A-82	Sequence 82, Appl
	30	43.4	3.8	1664976	4	US-08-916-421B-1	Sequence 1, Appli
	31	43.4	3.8	1664976	4	US-09-692-570-1	Sequence 1, Appli
c	32	42.8	3.8	6113	4	US-10-204-708-13	Sequence 13, Appl
c	33	42.4	3.7	3001	4	US-09-539-333D-208	Sequence 208, App
	34	42.2	3.7	2919	4	US-09-248-796A-6131	Sequence 6131, Ap
	35	41.6	3.7	1782	4	US-09-248-796A-5237	Sequence 5237, Ap
c	36	41.6	3.7	2517	4	US-09-893-600-1	Sequence 1, Appli
	37	41.4	3.7	603	4	US-09-248-796A-11532	Sequence 11532, A
	38	41.4	3.7	825	4	US-09-248-796A-444	Sequence 444, App
c	39	41.4	3.7	1055	4	US-09-806-708B-23	Sequence 23, Appl
	40	41.2	3.6	741	4	US-09-601-198-167	Sequence 167, App
c	41	41.2	3.6	1347	4	US-09-248-796A-3017	Sequence 3017, Ap
	42	41	3.6	1425	1	US-07-715-184-3	Sequence 3, Appli
	43	41	3.6	1425	1	US-07-876-280-6	Sequence 6, Appli
	44	41	3.6	1425	1	US-07-876-280-27	Sequence 27, Appl
	45	41	3.6	1425	1	US-07-935-310A-1	Sequence 1, Appli

ALIGNMENTS

RESULT 1
US-09-381-862-2
; Sequence 2, Application US/09381862
; Patent No. 6245906
; GENERAL INFORMATION:
; APPLICANT: Ueyama, Hiroshi
; APPLICANT: Abe, Kanako
; APPLICANT: Keshi, Hiroyuki
; APPLICANT: Matsuhisa, Akio
; TITLE OF INVENTION: PROBES FOR THE DIAGNOSIS OF INFECTIONS
; TITLE OF INVENTION: CAUSED BY STREPTOCOCCUS PYOGENES
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 233 South Wacker Drive/6300 Sears Tower
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/381,862
; FILING DATE:
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: JP 1997-71077
; FILING DATE: 25-MAR-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/JP98/01288
; FILING DATE: 23-MAR-1998
; ATTORNEY/AGENT INFORMATION:
; NAME: Cawley, Jr., Thomas A.
; REGISTRATION NUMBER: 40,944
; REFERENCE/DOCKET NUMBER: 19036/36274
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (312) 474-6300
; TELEFAX: (312) 474-0448
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3200 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; ORIGINAL SOURCE:
; ORGANISM: Streptococcus pyogenes

; STRAIN: Clinical Isolate SP-7-44
US-09-381-862-2

Query Match 74.9%; Score 849; DB 3; Length 3200;
Best Local Similarity 98.7%; Pred. No. 9.5e-204;
Matches 866; Conservative 0; Mismatches 10; Indels 1; Gaps 1;

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Qy       1 ATGATTCAATTTTCAATTAATCGCACATTATTTATTCATGCTTTAAATACAACTAAACGT 60
Db    2324 ATGATTCAATTTTCAATTAATCGCACATTATTTATTCATGCTTTAAATGCAACTAAACGT 2383

Qy      61 GCTATTAGCACTAAAAATGCCATTCCTATTCTTTCATCAATAAAAATTGAAGTCACTTCT 120
Db    2384 GCTATTAGCACTAAAAATGCCATTCCTATTCTTTCATCAATAAAGATTGAAGTCACTTCT 2443

Qy     121 ACAGGAGTAACTTTAACAGGGTCTAACGGTCAAATATCAATTGAAAACACTATTCCTGTA 180
Db    2444 ACAGGAGTAACTTTAACAGGGTCTAACGGTCAAATATCAATTGAAAACACTATTCCTGTA 2503

Qy     181 AGTAATGAAAATGCTGGTTTGCTAATTACCTCTCCAGGAGCTATTTTATTAGAAGCTAGT 240
Db    2504 AGTAATGAAAATGCTGGTTTGCTAATTACCTCTCCAGGAGCTATTTTATTAGAAGCTAGT 2563

Qy     241 TTTTTTATTAATATTATTTCAAGTTTGCCAGATATTAGTATAAATGTTAAAGAAATTGAA 300
Db    2564 TTTTTTATTAATATTATTTCAAGTTTGCCAGATATTAGTATAAATGTTAAAGAAATTGAA 2623

Qy     301 CAACACCAAGTTGTTTTAACCAGTGGTAAATCAGAGATTACCTTAAAAGGAAAAGATGTT 360
Db    2624 CAACACCAAGTTGTTTTAACCAGTGGTAAATCAGAGATTACCTTAAAAGGAAAAGATGTT 2683

Qy     361 GACCAGTATCCTCGTCTACAAGAAGTATCAACAGAAAATCCTTTGATTTTAAAAACAAAA 420
Db    2684 GACCAGTATCCTCGTCTACAAGAAGTATCAACAGAAAATCCTTTGATTTTAAAAACAAAA 2743

Qy     421 TTATTGAAGTCTATTATTGCTGAAACAGCTTTTGCAGCCAGTTTACAAGAAAGTCGTCCT 480
Db    2744 TTATTGAAGTCTATTATTGCTGAAACAGCTTTTGCAGCCAGTTTACAAGAAAGTCGTCCT 2803

Qy     481 ATTTTAACAGGAGTTCATATTGTATTAAGTAATCATAAAGATTTTAAAGCAGTAGCGACT 540
Db    2804 ATTTTAACAGGAGTTCATATTGTATTAAGCAATCATAAAGATTTTAAAGCAGTAGCGACT 2863

Qy     541 GACTCTCATCGTATGAGCCAACGTTTAATCACTTTGGAC-AATACTTCAGCAGATTTGAT 599
Db    2864 GACTCTCATCGTATGAGCCAACGTTTAATCACTTTGGACAAATACTTCAGCAGATTTTGA 2923

Qy     600 GGTAGTTCTTCCAAGTAAATCTTTGAGAGAATTTTCAGCAGTATTTACAGATGATATTGA 659
Db    2924 TGTGGTTATTCCAAGTAAATCTTTGAGAGAATTTTCAGCAGTATTTACAGATGATATTGA 2983

Qy     660 GACCGTTGAGGTATTTTTCTCACCAAGCCAAATCTTGTTCAGAAGTGAACACATTTCTTT 719
Db    2984 GACCGTTGAGGTATTTTTCTCACCAAGCCAAATCTTGTTCAGAAGTGAACACATTTCTTT 3043

Qy     720 TTATACACGCCTCTTAGAAGGAAATTATCCCGATACAGACCGTTTATTAATGACAGAATT 779
Db    3044 TTATACACGCCTCTTAGAAGGAAATTATCCCGATACAGATCGTTTATTAATGACAGAATT 3103

Qy     780 TGAGACGGAGGTTGTTTTCAATACCCAATCCCTTCGCCACGCTATGGAACGTGCCTTCTT 839
Db    3104 TGAGACGGAGGTTGTTTTCAATACCCAATCCCTTCGCCACGCTATGGAACGTGCCTTCTT 3163

Qy     840 GATTTCTAATGCTACTCAAAATGGTACTGTTAAGCTT 876
Db    3164 GATTTCTAATGCTACTCAAAATGGTACTGTTAAGCTT 3200
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RESULT 2
US-09-583-110-1744
Sequence 1744, Application US/09583110
Patent No. 6699703
GENERAL INFORMATION:

; APPLICANT: Lynn Doucette-Stamm et al.
; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococ
; TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
; FILE REFERENCE: PATH00-07A
; CURRENT APPLICATION NUMBER: US/09/583,110
; CURRENT FILING DATE: 2000-05-26
; PRIOR APPLICATION NUMBER: US 09/107,433
; PRIOR FILING DATE: 1998-06-30
; PRIOR APPLICATION NUMBER: US 60/085,131
; PRIOR FILING DATE: 1998-05-12
; PRIOR APPLICATION NUMBER: US 60/051,553
; PRIOR FILING DATE: 1997-07-02
; NUMBER OF SEQ ID NOS: 5322
; SEQ ID NO 1744
; LENGTH: 1137
; TYPE: DNA
; ORGANISM: Streptococcus pneumoniae
US-09-583-110-1744

Query Match 53.6%; Score 608.2; DB 4; Length 1137;
Best Local Similarity 71.1%; Pred. No. 2e-143;
Matches 805; Conservative 0; Mismatches 328; Indels 0; Gaps 0;

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Qy       1 ATGATTCAATTTTCAATTAATCGCACATTATTTATTCATGCTTTAAATACAACTAAACGT 60
Db       1 ATGATTCATTTTTCAATTAATAAAAATTTATTTCTACAAGCATTAAATACTACTAAGAGA 60

Qy      61 GCTATTAGCACTAAAAATGCCATTCCTATTCTTTCATCAATAAAAATTGAAGTCACTTCT 120
Db      61 GCTATTAGTTCTAAAAATGCCATTCCTATTTTATCAACAGTAAAAATTGACGTGACCAAT 120

Qy     121 ACAGGAGTAACTTTAACAGGGTCTAACGGTCAAATATCAATTGAAAACACTATTCCTGTA 180
Db     121 GAAGGTATTACTTTAATTGGTTCAAATGGTCAAATTTCAATTGAAAATTTTATTTCTCAA 180

Qy     181 AGTAATGAAAATGCTGGTTTGCTAATTACCTCTCCAGGAGCTATTTTATTAGAAGCTAGT 240
Db     181 AAAAATGAAGATGCTGGTTTGTTAATTACTTCTTTAGGTTCGATCCTTCTTGAAGCTTCT 240

Qy     241 TTTTTTATTAATATTATTTCAAGTTTGCCAGATATTAGTATAAATGTTAAAGAAATTGAA 300
Db     241 TTCTTTATCAATGTAGTATCTAGTTTACCTGATGTAACTCTTGATTTTAAAGAAATTGAA 300

Qy     301 CAACACCAAGTTGTTTTAACCAGTGGTAAATCAGAGATTACCTTAAAAGGAAAAGATGTT 360
Db     301 CAAAATCAAATTGTTTTAACCAGTGGCAAATCAGAAATTACCCTAAAAGGAAAAGATAGC 360

Qy     361 GACCAGTATCCTCGTCTACAAGAAGTATCAACAGAAAATCCTTTGATTTTAAAAACAAAA 420
Db     361 GAACAATATCCACGAATCCAAGAAATTTCAGCAAGCACTCCTTTAATACTTGAAACAAAA 420

Qy     421 TTATTGAAGTCTATTATTGCTGAAACAGCTTTTGCAGCCAGTTTACAAGAAAGTCGTCCT 480
Db     421 TTACTCAAGAAAATTATTAATGAAACAGCCTTTGCTGCAAGTACACAAGAGAGTCGTCCG 480

Qy     481 ATTTTAACAGGAGTTCATATTGTATTAAGTAATCATAAAGATTTTAAAGCAGTAGCGACT 540
Db     481 ATTTTAACAGGTGTCCACTTCGTATTGAGTCAACACAAAGAGTTAAAAACAGTTGCAACA 540

Qy     541 GACTCTCATCGTATGAGCCAACGTTTAATCACTTTGGACAATACTTCAGCAGATTTGATG 600
Db     541 GACTCTCATCGCCTAAGCCAGAAAAAATTGACTCTTGAAAAAAATAGTGATGATTTTGAT 600

Qy     601 GTAGTTCTTCCAAGTAAATCTTTGAGAGAATTTTCAGCAGTATTTACAGATGATATTGAG 660
Db     601 GTCGTAATTCCTAGCCGTTCTCTACGCGAATTTTCAGCGGTATTTACAGATGATATCGAA 660

Qy     661 ACCGTTGAGGTATTTTTCTCACCAAGCCAAATCTTGTTCAGAAGTGAACACATTTCTTTT 720
Db     661 ACTGTAGAGATTTTCTTTGCCAATAACCAAATCCTCTTTAGAAGCGAAAATATTAGCTTC 720

Qy     721 TATACACGCCTCTTAGAAGGAAATTATCCCGATACAGACCGTTTATTAATGACAGAATTT 780
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Db        721 TATACTCGTCTCCTAGAAGGAAACTATCCTGATACAGATCGCTTGATTCCAACAGACTTT 780

Qy        781 GAGACGGAGGTTGTTTTCAATACCCAATCCCTTCGCCACGCTATGGAACGTGCCTTCTTG 840

Db        781 AACACTACTATTACTTTTAATGTGGTAAACTTACGCCAGTCAATGGAGCGTGCCCGTCTT 840

Qy        841 ATTTCTAATGCTACTCAAAATGGTACTGTTAAGCTTGAGATTACTCAAAATCATATTTCA 900

Db        841 TTATCAAGTGCGACTCAAAATGGTACTGTGAAACTTGAAATTAAGGATGGGGTTGTTAGC 900

Qy        901 GCTCATGTTAACTCACCTGAGGTTGGTAAGGTAAACGAGGATTTAGATATTGTTAGTCAG 960

Db        901 GCCCATGTTCACTCTCCAGAAGTTGGTAAAGTAAACGAAGAAATCGATACTGATCAGGTT 960

Qy        961 TCTGGTAGTGATTTAACTATCAGCTTCAATCCAACTTACCTTATTGAGTCTTTAAAAGCT 1020

Db        961 ACTGGTGAAGATTTGACCATTAGTTTCAACCCAACTTACTTGATTGATTCTCTTAAAGCT 1020

Qy       1021 ATTAAAAGTGAAACAGTAAAAATTCATTTCTTATCACCAGTTCGACCATTCACCCTAACA 1080

Db       1021 TTAAATAGCGAAAAGGTGACCATTAGCTTTATCTCAGCTGTTCGTCCATTTACTCTTGTG 1080

Qy       1081 CCAGGCGATGAGGAAGAAAGTTTTATCCAATTAATTACACCAGTACGAACAAA 1133

Db       1081 CCAGCAGATACTGACGAAGACTTCATGCAGCTCATTACACCAGTTCGTACAAA 1133
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RESULT 3
US-08-961-527-20
; Sequence 20, Application US/08961527
; Patent No. 6420135
;  GENERAL INFORMATION:
;    APPLICANT:  Charles Kunsch
;    TITLE OF INVENTION:  Streptococcus pneumoniae Polynucleotides and Sequences
;    NUMBER OF SEQUENCES:  391
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Human Genome Sciences, Inc.
;      STREET:  9410 Key West Avenue
;      CITY:  Rockville
;      STATE:  Maryland
;      COUNTRY:  USA
;      ZIP:  20850
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.50 inch, 1.4Mb storage
;      COMPUTER:  HP Vectra 486/33
;      OPERATING SYSTEM:  MSDOS version 6.2
;      SOFTWARE:  ASCII Text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/961,527
;      FILING DATE:
;      CLASSIFICATION:  424
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Brookes, A. Anders
;      REGISTRATION NUMBER:  36,373
;      REFERENCE/DOCKET NUMBER:  PB340P1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (301) 309-8504
;      TELEFAX:  (301) 309-8512
;  INFORMATION FOR SEQ ID NO:  20:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  21338 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
US-08-961-527-20

  Query Match           53.6%;  Score 608.2;  DB 4;  Length 21338;
  Best Local Similarity  71.1%;  Pred. No. 5.7e-143;
  Matches  805;  Conservative    0;  Mismatches  328;  Indels    0;  Gaps    0;
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Qy           1 ATGATTCAATTTTCAATTAATCGCACATTATTTATTCATGCTTTAAATACAACTAAACGT 60

Db        7076 ATGATTCATTTTTCAATTAATAAAAATTTATTTCTACAAGCATTAAATACTACTAAGAGA 7135

Qy          61 GCTATTAGCACTAAAAATGCCATTCCTATTCTTTCATCAATAAAAATTGAAGTCACTTCT 120

Db        7136 GCTATTAGTTCTAAAAATGCCATTCCTATTTTATCAACAGTAAAAATTGACGTGACCAAT 7195

Qy         121 ACAGGAGTAACTTTAACAGGGTCTAACGGTCAAATATCAATTGAAAACACTATTCCTGTA 180

Db        7196 GAAGGTATTACTTTAATTGGTTCAAATGGTCAAATTTCAATTGAAAATTTTATTTCTCAA 7255

Qy         181 AGTAATGAAAAATGCTGGTTTGCTAATTACCTCTCCAGGAGCTATTTTATTAGAAGCTAGT 240

Db        7256 AAAAATGAAGATGCTGGTTTGTTAATTACTTCTTTAGGTTCGATCCTTCTTGAAGCTTCT 7315

Qy         241 TTTTTTATTAATATTATTTCAAGTTTGCCAGATATTAGTATAAATGTTAAAGAAATTGAA 300

Db        7316 TTCTTTATCAATGTAGTATCTAGTTTACCTGATGTAACTCTTGATTTTAAAGAAATTGAA 7375

Qy         301 CAACACCAAGTTGTTTTAACCAGTGGTAAATCAGAGATTACCTTAAAAGGAAAAGATGTT 360

Db        7376 CAAAATCAAATTGTTTTAACCAGTGGCAAATCAGAAATTACCCTAAAAGGAAAAGATAGC 7435

Qy         361 GACCAGTATCCTCGTCTACAAGAAGTATCAACAGAAAATCCTTTGATTTTAAAAACAAAA 420

Db        7436 GAACAATATCCACGAATCCAAGAAATTTCAGCAAGCACTCCTTTAATACTTGAAACAAAA 7495

Qy         421 TTATTGAAGTCTATTATTGCTGAAACAGCTTTTGCAGCCAGTTTACAAGAAAGTCGTCCT 480

Db        7496 TTACTCAAGAAAATTATTAATGAAACAGCCTTTGCTGCAAGTACACAAGAGAGTCGTCCG 7555

Qy         481 ATTTTAACAGGAGTTCATATTGTATTAAGTAATCATAAAGATTTTAAAGCAGTAGCGACT 540

Db        7556 ATTTTAACAGGTGTCCACTTCGTATTGAGTCAACACAAAGAGTTAAAAACAGTTGCAACA 7615

Qy         541 GACTCTCATCGTATGAGCCAACGTTTAATCACTTTGGACAATACTTCAGCAGATTTGATG 600

Db        7616 GACTCTCATCGCCTAAGCCAGAAAAAATTGACTCTTGAAAAAAATAGTGATGATTTTGAT 7675

Qy         601 GTAGTTCTTCCAAGTAAATCTTTGAGAGAATTTTCAGCAGTATTTACAGATGATATTGAG 660

Db        7676 GTCGTAATTCCTAGCCGTTCTCTACGCGAATTTTCAGCGGTATTTACAGATGATATCGAA 7735

Qy         661 ACCGTTGAGGTATTTTTCTCACCAAGCCAAATCTTGTTCAGAAGTGAACACATTTCTTTT 720

Db        7736 ACTGTAGAGATTTTCTTTGCCAATAACCAAATCCTCTTTAGAAGCGAAAATATTAGCTTC 7795

Qy         721 TATACACGCCTCTTAGAAGGAAATTATCCCGATACAGACCGTTTATTAATGACAGAATTT 780

Db        7796 TATACTCGTCTCCTAGAAGGAAACTATCCTGATACAGATCGCTTGATTCCAACAGACTTT 7855

Qy         781 GAGACGGAGGTTGTTTTCAATACCCAATCCCTTCGCCACGCTATGGAACGTGCCTTCTTG 840

Db        7856 AACACTACTATTACTTTTAATGTGGTAAACTTACGCCAGTCAATGGAGCGTGCCCGTCTT 7915

Qy         841 ATTTCTAATGCTACTCAAAATGGTACTGTTAAGCTTGAGATTACTCAAAATCATATTTCA 900

Db        7916 TTATCAAGTGCGACTCAAAATGGTACTGTGAAACTTGAAATTAAGGATGGGGTTGTTAGC 7975

Qy         901 GCTCATGTTAACTCACCTGAGGTTGGTAAGGTAAACGAGGATTTAGATATTGTTAGTCAG 960

Db        7976 GCCCATGTTCACTCTCCAGAAGTTGGTAAAGTAAACGAAGAAATCGATACTGATCAGGTT 8035

Qy         961 TCTGGTAGTGATTTAACTATCAGCTTCAATCCAACTTACCTTATTGAGTCTTTAAAAGCT 1020

Db        8036 ACTGGTGAAGATTTGACCATTAGTTTCAACCCAACTTACTTGATTGATTCTCTTAAAGCT 8095

Qy        1021 ATTAAAAGTGAAACAGTAAAAATTCATTTCTTATCACCAGTTCGACCATTCACCCTAACA 1080

Db        8096 TTAAATAGCGAAAAGGTGACTATTAGCTTTATCTCAGCTGTTCGTCCATTTACTCTTGTG 8155

Qy        1081 CCAGGCGATGAGGAAGAAAGTTTTATCCAATTAATTACACCAGTACGAACAAA 1133
```

(FILE 'CAPLUS' ENTERED AT 09:49:53 ON 04 FEB 2005)
L1 455 S (DNAN OR DNA N)
L2 2 S L1 AND (STREPTOCOCC? OR S)(W)PYOGEN?

(FILE 'REGISTRY' ENTERED AT 09:52:36 ON 04 FEB 2005)
L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DNA (STREPTOCOCCUS PYOGENES GENE DNAN)"/CN

FILE 'CAPLUS' ENTERED AT 09:54:56 ON 04 FEB 2005
L5 1 S L4
L6 2 S L2 OR L5

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 03 May 2002
ACCESSION NUMBER: 2002:332364 CAPLUS
DOCUMENT NUMBER: 136:352018
TITLE: **Streptococcus pyogenes** DNA polymerase III holoenzyme subunits and their genes
INVENTOR(S): McHenry, Charles S.; Bullard, James M.; Janjic, Nebojsa; Manhardt, Erika L.; Kery, Vladimir; Williams, Jennifer C.
PATENT ASSIGNEE(S): Replidyne, Inc., USA
SOURCE: PCT Int. Appl., 268 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002034936	A2	20020502	WO 2001-US48396		20011029
WO 2002034936	C2	20030417			
WO 2002034936	A3	20020725			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2002032586	A5	20020506	AU 2002-32586		20011029
PRIORITY APPLN. INFO.:			US 2000-244023P	P	20001027
			WO 2001-US48396	W	20011029

AB **Streptococcus pyogenes** nucleic acid mols. encoding polC, dnaE (subunit α), holA (subunit δ), holB (subunit δ'), dnaX (subunit τ), **dnaN** (subunit β), SSB (single-stranded DNA-binding protein), dnaG (primase), dnaQ (subunit ε), dnaA and dnaB proteins, as well as nucleic acid mols. comprising the oriC origin of replication are provided. The encoded subunit proteins of **S. pyogenes** DNA polymerase III are also provided. The nucleic acid mols. and proteins are useful for reconstituting replicases and polymerases for sequencing, amplification,

and screening for compds. which modulate the function of the polymerase or replicase.

IT **419927-96-1**, DNA (**Streptococcus pyogenes** gene **dnaN**)
RL: ANT (Analyte); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; **Streptococcus pyogenes** DNA polymerase III holoenzyme subunits and their genes)

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 09 Feb 2001
ACCESSION NUMBER: 2001:101168 CAPLUS
DOCUMENT NUMBER: 134:143863
TITLE: DNA replication proteins of Gram-positive bacteria and their use to screen for chemical inhibitors
INVENTOR(S): O'donnell, Michael E.; Bruck, Irina; Zhang, Dan; Whipple, Richard
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: PCT Int. Appl., 238 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001009164	A2	20010208	WO 2000-US20666		20000728
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
AU 2000067499	A5	20010219	AU 2000-67499		20000728
US 2003129633	A1	20030710	US 2002-282287		20021028
PRIORITY APPLN. INFO.:			US 1999-235245	A	19990122
			US 1999-146178P	P	19990729
			US 1998-74522P	P	19980127
			US 1998-93727P	P	19980722
			WO 2000-US20666	W	20000728

AB The present invention relates to α-large, α-small, δ, δ', τ, β, SSB, DnaG, and DnaB and (polC, dnaE, holA, holB, dnaX, **dnaN**, ssb, dnaG, dnaB) genes encoding them from Gram pos. bacteria, preferably **Streptococcus pyogenes** and Staphylococcus aureus. The individual genes and proteins or polypeptides are useful in identification of compds. with antibiotic activity. Thus, the structure and mechanism of the chromosomal replicase of **S. pyogenes** and S. aureus have been elucidated. These DNA polymerases use a sliding clamp (the **dnaN**-encoded β subunit) and clamp loader (the dnaX-encoded τ subunit). The clamp and clamp loader components of Gram-neg. cells could be exchanged for those of Gram-pos. cells.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 09:56:11 ON 04 FEB 2005)
L7 1 S L6

L7 ANSWER 1 OF 1 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-147453 [15] WPIDS
DOC. NO. CPI: C2001-043718
TITLE: Isolated DNA molecule from a Gram positive bacterium encoding DNA replication proteins used to identify compounds which have antibiotic activity.
DERWENT CLASS: B04 D16
INVENTOR(S): BRUCK, I; O'DONNELL, M E; WHIPPLE, R; ZHANG, D
PATENT ASSIGNEE(S): (UYRQ) UNIV ROCKEFELLER
COUNTRY COUNT: 91
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009164	A2	20010208	(200115)*	EN	238

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000067499	A	20010219	(200129)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009164	A2	WO 2000-US20666	20000728
AU 2000067499	A	AU 2000-67499	20000728

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000067499	A	Based on	WO 2001009164

PRIORITY APPLN. INFO: US 1999-146178P 19990729
AN 2001-147453 [15] WPIDS
AB WO 200109164 A UPAB: 20011129
NOVELTY - Isolated DNA molecule (I) from a Gram positive bacterium comprises a coding region from a polC, dnaE, holA, holB, dnaX, **dnaN**, ssb, dnaG or a dnaB gene.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) an expression system comprising an expression vector into which is inserted (I);
(2) a host cell comprising (I);
(3) an isolated protein or polypeptide from a Gram positive bacterium which is alpha-large, alpha-small, delta, delta prime, tau, beta, SSB, DnaG or DnaB protein or polypeptide; and
(4) a method of identifying compounds which inhibit the activity of a

polymerase product of polC or dnaE comprising:

(a) forming a reaction mixture containing a primed DNA molecule, a polymerase product of polC or dnaE, a candidate compound, a dNTP, and optionally a beta subunit and/or a tau complex, where at least one of the polymerase product of polC or dnaE, beta subunit, tau complex, or a subunit or combination of subunits is derived from a Eubacteria other than Escherichia coli;

(b) subjecting the reaction mixture to conditions effective for polymerization extension products in the absence of the candidate compound;

(c) analyzing the reaction mixture for the presence or absence of nucleic acid polymerization extension products; and

(d) identifying the candidate compound in the reaction mixture where there is an absence of nucleic acid polymerization products.

USE - (I) encodes proteins that replicate the chromosome of Gram positive bacteria and are used for sequencing and amplification of DNA and in drug discovery to identify compounds which have antibiotic activity through interference with replication. The methods identify compounds that are active at the level of DNA replication and result in arrest of cell growth or cell death of bacteria to treat bacterial infections in animals.

ADVANTAGE - (I) encodes proteins which provide further targets for antibiotics. The methods are amenable to high throughput screening assays.

Dwg.0/21

(FILE 'USPATFULL' ENTERED AT 09:57:14 ON 04 FEB 2005)

L9 19 S L5 OR L1(L)((STREPTOCOCC? OR S)(W)PYOGEN?)

L9 ANSWER 1 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2005:30758 USPATFULL

TITLE: Microbial operons

INVENTOR(S): Wang, Liangsu, San Diego, CA, UNITED STATES
Zamudio, Carlos, La Jolla, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005026189	A1	20050203	
APPLICATION INFO.:	US 2004-857625	A1	20040528	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2003-474768P	20030529	(60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614

NUMBER OF CLAIMS: 35

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 11 Drawing Page(s)

LINE COUNT: 10876

AB Described herein is a method for predicting operons in prokaryotes. Also described herein are vectors comprising operons predicted using the this method as well as methods of using antisense nucleic acids complementary to at least a portion of a predicted proliferation-required operon to inhibit cellular proliferation. Methods of using such antisense nucleic acids to sensitize cells for use in assays to identify compounds which possess the ability to inhibit cellular proliferation are also

described.

INCL INCLM: 435/006.000
INCLS: 702/020.000
NCL NCLM: 435/006.000
NCLS: 702/020.000

L9 ANSWER 2 OF 19 USPATFULL on STN

ACCESSION NUMBER:	2005:10919 USPATFULL		
TITLE:	Fragmentation-based methods and systems for de novo sequencing		
INVENTOR(S):	Boecker, Sebastian, Bielefeld, GERMANY, FEDERAL REPUBLIC OF Boom, Dirk van den, La Jolla, CA, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005009053	A1	20050113
APPLICATION INFO.:	US 2004-830943	A1	20040422 (10)
	NUMBER		DATE
PRIORITY INFORMATION:	US 2003-466006P		20030425 (60)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Stephanie L. Seidman, FISH & RICHARDSON P.C., 12390 El Camino Real, San Diego, CA, 92130-2081		
NUMBER OF CLAIMS:	84		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Page(s)		
LINE COUNT:	4217		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and systems, particularly mass spectrometric methods and systems, for the analysis and sequencing of biomolecules, particularly nucleic acids, by fragmentation are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/007.100; 702/020.000
NCL NCLM: 435/006.000
NCLS: 435/007.100; 702/020.000

L9 ANSWER 3 OF 19 USPATFULL on STN

ACCESSION NUMBER:	2004:299897 USPATFULL		
TITLE:	System for discovery of agents that block yersinia pestis and pseudomonas aeruginosa dna replication		
INVENTOR(S):	Bullard, James M., Longmont, CO, UNITED STATES Janjic, Nebojsa, Boulder, CO, UNITED STATES McHenry, Charles S., Denver, CO, UNITED STATES		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004235766	A1	20041125
APPLICATION INFO.:	US 2003-476597	A1	20031031 (10)
	WO 2002-US15111		20020514

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-60290725	20010514
	US 2001-60332644	20011105

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SWANSON & BRATSCHUN L.L.C., 1745 SHEA CENTER DRIVE, SUITE 330, HIGHLANDS RANCH, CO, 80129
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 77 Drawing Page(s)
LINE COUNT: 5150
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Y. pestis and P. aeruginosa nucleic acid molecules encoding dnaE, holA, holB, holC, holD, holE, dnaX, dnaN, SSB, dnaG, dnaQ, proteins are provided. The encoded proteins are also provided. The nucleic acid molecules and proteins are useful for reconstituting replicases and polymerases for sequencing, amplification, and screening for compounds which modulate the function of the polyemersase or replicase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
INCLS: 435/006.000
NCL NCLM: 514/044.000
NCLS: 435/006.000

L9 ANSWER 4 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:250212 USPATFULL
TITLE: Nucleic acid and amino acid sequences relating to Streptococcus pneumoniae for diagnostics and therapeutics
INVENTOR(S): Doucette-Stamm, Lynn A., Framingham, MA, United States
Bush, David, Somerville, MA, United States
PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6800744	B1	20041005	
APPLICATION INFO.:	US 1998-107433		19980630	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-85131P	19980512 (60)
	US 1997-51553P	19970702 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Brusca, John S.
ASSISTANT EXAMINER: Zhou, Shubo "Joe "
LEGAL REPRESENTATIVE: Genome Therapeutics Corporation
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 11545
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences

derived from Streptococcus pneumonia that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 536/023.100
INCLS: 435/006.000; 435/320.100; 435/325.000; 435/254.000; 435/419.000; 536/024.100; 536/023.400; 536/024.320
NCL NCLM: 536/023.100
NCLS: 435/006.000; 435/320.100; 435/325.000; 435/419.000; 536/023.400; 536/024.100; 536/024.320

L9 ANSWER 5 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:217811 USPATFULL
TITLE: Development of novel anti-microbial agents based on bacteriophage genomics
INVENTOR(S): Pelletier, Jerry, 8 Lakeview, Baie-D'Urfe, Quebec, CANADA H9X 3B1
Gros, Philippe, 107 Montrose, St. Lambert, Quebec, CANADA J4R 1X4
DuBow, Michael, 4901 Coolbrook Avenue, Montreal, Quebec, CANADA H3X 2K8

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6783930	B1	20040831
APPLICATION INFO.:	US 1999-454252		19991202 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-407804, filed on 28 Sep 1999

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-110992P	19981203 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Wax, Robert A.
ASSISTANT EXAMINER: Mitra, Rita
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 9158
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for identifying suitable targets for antibacterial agents based on identifying targets of bacteriophage-encoded proteins is described. Also described are compositions useful in the identification methods and in inhibiting bacterial growth, and methods for preparing and using such compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/005.000
INCLS: 435/007.100; 435/007.330; 435/007.800; 435/883.000; 536/023.700; 530/350.000; 530/820.000
NCL NCLM: 435/005.000
NCLS: 435/007.100; 435/007.330; 435/007.800; 435/883.000; 530/350.000;

530/820.000; 536/023.700

L9 ANSWER 6 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:178350 USPATFULL
TITLE: DNA sequences from staphylococcus aureus bacteriophage 44AHJD that encode anti-microbial polypeptides
INVENTOR(S): Pelletier, Jerry, Baie-D'Urfe, CANADA
Gros, Philippe, St. Lambert, CANADA
DuBow, Michael, Antony, FRANCE
Bergeron, Dominique, Montreal, CANADA
PATENT ASSIGNEE(S): Phagetech, Inc. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004137516	A1	20040715
APPLICATION INFO.:	US 2003-449830	A1	20030531 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-727892, filed on 1 Dec 2000, PENDING Continuation of Ser. No. WO 2001-CA1754, filed on 30 Nov 2001, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-168777P	19991201 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800, WASHINGTON, DC, 20037
NUMBER OF CLAIMS: 43
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Page(s)
LINE COUNT: 3666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to newly identified polynucleotides and polypeptides, and their production and uses, as well as their variants, agonists and antagonists, and their uses. In particular, the invention relates to specific interaction between the S. aureus STAAU_R2 related protein or specific regions thereof, and growth-inhibitory proteins encoded by the S. aureus bacteriophage genome. The invention relates to the use of these interaction target sites as the basis of drug screening assays.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/007.100
NCL NCLM: 435/007.100

L9 ANSWER 7 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:152148 USPATFULL
TITLE: Retroductal salivary gland genetic vaccination
INVENTOR(S): Tucker, Sean, San Francisco, CA, UNITED STATES
Bennett, Michael, El Sobrante, CA, UNITED STATES
Chen, Yen-Ju, Alameda, CA, UNITED STATES
Olson, David, Alameda, CA, UNITED STATES
PATENT ASSIGNEE(S): Genteric, Inc., Alameda, CA (U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION: US 2004116370 A1 20040617
APPLICATION INFO.: US 2003-649106 A1 20030826 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407375P	20020830 (60)
	US 2003-453999P	20030311 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
NUMBER OF CLAIMS: 51
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Page(s)
LINE COUNT: 2307
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides compositions and methods for eliciting an immune response and compositions and methods for transfecting antigen presenting cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
INCLS: 424/093.200; 514/150.000
NCL NCLM: 514/044.000
NCLS: 424/093.200; 514/150.000

L9 ANSWER 8 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:139392 USPATFULL
TITLE: Methods for treating and preventing infectious disease
INVENTOR(S): Krieg, Arthur M., Wellesley, MA, UNITED STATES
Klinman, Dennis, Potomac, MD, UNITED STATES
Steinberg, Alfred D., Potomac, MD, UNITED STATES
PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA (U.S. corporation)
The United States of America, as Represented by the Secretary, Dept. of Health & Human Services, Bethesda, MD (U.S. corporation)
Coley Pharmaceutical Group, Inc., Wellesley, MA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004106568	A1	20040603
APPLICATION INFO.:	US 2003-627331	A1	20030725 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-187489, filed on 2 Jul 2002, PENDING Division of Ser. No. US 2000-630319, filed on 31 Jul 2000, PENDING Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, GRANTED, Pat. No. US 6239116 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, GRANTED, Pat. No. US 6207646 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, GRANTED, Pat. No. US 6194388 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, ABANDONED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Helen C. Lockhart, Wolf, Greenfield & Sacks, P.C., Federal Reserve Plaza, 600 Atlantic Avenue, Boston, MA, 02210
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Page(s)
LINE COUNT: 3441
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sequences containing unmethylated CpG dinucleotides that modulate an immune response including stimulating a Th1 pattern of immune activation, cytokine production, NK lytic activity, and B cell proliferation are disclosed. The sequences are also useful as a synthetic adjuvant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
INCLS: 536/023.100
NCL NCLM: 514/044.000
NCLS: 536/023.100

L9 ANSWER 9 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:120447 USPATFULL
TITLE: DNA sequences from staphylococcus aureus bacteriophage 44AHJD that encode anti-microbial polypeptides
INVENTOR(S): Pelletier, Jerry, Baie-D'Urfe, CANADA
Gros, Philippe, Lambert, CANADA
Dubow, Michael, Montreal, CANADA

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004091856	A1	20040513	
APPLICATION INFO.:	US 2000-727892	A1	20001201	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-168777P	19991201 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: FOLEY & LARDNER, P.O. BOX 80278, SAN DIEGO, CA, 92138-0278
NUMBER OF CLAIMS: 110
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Page(s)
LINE COUNT: 9802
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The disclosure concerns particular bacteriophage open reading frame, and portions and products of those open reading frames which have antimicrobial activity Also disclosed is an S. aureus protein that interacts with an inhibitory phage protein. Methods of using such products are also described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/005.000
NCL NCLM: 435/006.000
NCLS: 435/005.000

L9 ANSWER 10 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:114692 USPATFULL
TITLE: Methods of treating cancer using immunostimulatory oligonucleotides
INVENTOR(S): Krieg, Arthur M., Wellesley, MA, UNITED STATES
Weiner, George, Iowa City, IA, UNITED STATES
PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004087538	A1	20040506
APPLICATION INFO.:	US 2003-719493	A1	20031121 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-337619, filed on 21 Jun 1999, GRANTED, Pat. No. US 6653292 Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, GRANTED, Pat. No. US 6239116 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, GRANTED, Pat. No. US 6207646 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, GRANTED, Pat. No. US 6194388 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, ABANDONED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Helen C. Lockhart, Ph.D., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA, 02210
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Page(s)
LINE COUNT: 3433
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sequences containing unmethylated CpG dinucleotides that modulate an immune response including stimulating a Th1 pattern of immune activation, cytokine production, NK lytic activity, and B cell proliferation are disclosed. The sequences are also useful as a synthetic adjuvant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
INCLS: 435/006.000; 536/023.100
NCL NCLM: 514/044.000
NCLS: 435/006.000; 536/023.100

L9 ANSWER 11 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:312140 USPATFULL
TITLE: Novel DNA polymerase III holoenzyme delta subunit nucleic acid molecules and proteins
INVENTOR(S): Bullard, James M., Longmont, CO, UNITED STATES
Janjic, Nebojsa, Boulder, CO, UNITED STATES
McHenry, Charles S., Denver, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003219737	A1	20031127
APPLICATION INFO.:	US 2001-906179	A1	20010716 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-818780, filed on 28 Mar 2001, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-218246P	20000714 (60)
	US 2000-192736P	20000328 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SWANSON & BRATSCHUN L.L.C., 1745 SHEA CENTER DRIVE, SUITE 330, HIGHLANDS RANCH, CO, 80129
NUMBER OF CLAIMS: 76
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 59 Drawing Page(s)
LINE COUNT: 14551
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Gene and amino acid sequences encoding DNA polymerase III holoenzyme δ subunits and structural genes from bacteria are provided. Also provided are antibodies and other reagents useful to identify DNA polymerase III δ subunit molecules. Also provided are methods to identify DNA polymerase III δ subunit molecules. The use of DNA polymerase III δ subunit molecules in assays to identify candidate antibiotics are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/199.000; 702/020.000
NCL NCLM: 435/006.000
NCLS: 435/199.000; 702/020.000

L9 ANSWER 12 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:309071 USPATFULL
TITLE: Method of treating cancer using immunostimulatory oligonucleotides
INVENTOR(S): Krieg, Arthur M., Iowa City, IA, United States
Weiher, George, Iowa City, IA, United States
PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6653292	B1	20031125
APPLICATION INFO.:	US 1999-337619		19990621 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, now patented, Pat. No. US 6239116, issued on 29 May 2001 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, now patented, Pat. No. US 6207646, issued on 27 Mar 2001 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, now patented, Pat. No. US 6194388, issued on 27 Feb 2001 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Martinell, James
LEGAL REPRESENTATIVE: Wolf, Greenfield & Sacks, P.C.

NUMBER OF CLAIMS: 57
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 19 Drawing Page(s)
LINE COUNT: 3666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sequences containing unmethylated CpG dinucleotides that modulate an immune response including stimulating a Th1 pattern of immune activation, cytokine production, NK lytic activity, and B cell proliferation are disclosed. The sequences are also useful a synthetic adjuvant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
INCLS: 536/023.100
NCL NCLM: 514/044.000
NCLS: 536/023.100

L9 ANSWER 13 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:271471 USPATFULL
TITLE: Methods for treating and preventing infectious disease
INVENTOR(S): Krieg, Arthur M., Wellesley, MA, UNITED STATES
Klinman, Dennis, Potomac, MD, UNITED STATES
Steinberg, Alfred D., Potomac, MD, UNITED STATES
PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003191079	A1	20031009
APPLICATION INFO.:	US 2002-306522	A1	20021127 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-187489, filed on 2 Jul 2002, PENDING Division of Ser. No. US 2000-630319, filed on 31 Jul 2000, PENDING Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, GRANTED, Pat. No. US 6239116 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, GRANTED, Pat. No. US 6207646 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, GRANTED, Pat. No. US 6194388 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, ABANDONED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Helen C. Lockhart, Wolf, Greenfield & Sacks, P.C., Federal Reserve Plaza, 600 Atlantic Avenue, Boston, MA, 02210
NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Page(s)
LINE COUNT: 3449
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sequences containing unmethylated CpG dinucleotides that modulate an immune response including stimulating a Th1 pattern of immune activation, cytokine production, NK lytic activity, and B cell proliferation are disclosed. The sequences are also useful as a synthetic adjuvant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
INCLS: 536/023.200
NCL NCLM: 514/044.000
NCLS: 536/023.200

L9 ANSWER 14 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:240330 USPATFULL
TITLE: Nucleic acid and amino acid sequences relating to Enterococcus faecalis for diagnostics and therapeutics
INVENTOR(S): Doucette-Stamm, Lynn A., 14 Flanagan Dr., Framingham, MA, United States 01701
Bush, David, 205 Holland St., Somerville, MA, United States 02144

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6617156	B1	20030909
APPLICATION INFO.:	US 1998-134000		19980813 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-55778P	19970815 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Mosher, Mary E.
LEGAL REPRESENTATIVE: Genome Therapeutics Corporation
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1,5,14
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 13738
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides isolated polypeptide and nucleic acid sequences derived from Enterococcus faecalis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/320.100
INCLS: 536/023.700; 536/024.320; 435/252.300; 435/069.100; 435/006.000
NCL NCLM: 435/320.100
NCLS: 435/006.000; 435/069.100; 435/252.300; 536/023.700; 536/024.320

L9 ANSWER 15 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:187843 USPATFULL
TITLE: DNA replication proteins of Gram positive bacteria and their use to screen for chemical inhibitors
INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson, NY, UNITED STATES
Zhang, Dan, Forest Hills, NY, UNITED STATES
Whipple, Richard, Elizabeth, NJ, UNITED STATES

	NUMBER	KIND	DATE

PATENT INFORMATION: US 2003129633 A1 20030710
APPLICATION INFO.: US 2002-282287 A1 20021028 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-235245, filed on 22 Jan 1999, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-74572P	19980213 (60)
	US 1998-93727P	19980722 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Michael L. Goldman, NIXON PEABODY LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Page(s)
LINE COUNT: 3756
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The duplex DNA of chromosomes is replicated in a multicomponent process. A helicase unwinds the DNA, a replicase synthesizes new DNA, and primase repeatedly synthesizes new primed starts on the lagging strand. The present invention is directed to the genes from Gram positive bacterium encoding these proteins, and their characterization.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/069.300; 435/199.000; 435/252.300; 435/320.100; 536/023.700
NCL NCLM: 435/006.000
NCLS: 435/069.300; 435/199.000; 435/252.300; 435/320.100; 536/023.700

L9 ANSWER 16 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:169096 USPATFULL
TITLE: Nucleic acid sequences and expression system relating to Enterococcus faecium for diagnostics and therapeutics
INVENTOR(S): Doucette-Stamm, Lynn A., Framingham, MA, United States
Bush, David, Somerville, MA, United States
PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6583275	B1	20030624
APPLICATION INFO.:	US 1998-107532		19980630 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-85598P	19980514 (60)
	US 1997-51571P	19970702 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Marschel, Ardin H.
LEGAL REPRESENTATIVE: Genome Therapeutics Corporation
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)

LINE COUNT: 15265
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides isolated polypeptide and nucleic acid sequences derived Enterococcus faecium that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 536/023.100
INCLS: 435/006.000; 435/243.000; 435/320.100; 435/325.000; 536/024.300; 536/024.320
NCL NCLM: 536/023.100
NCLS: 435/006.000; 435/243.000; 435/320.100; 435/325.000; 536/024.300; 536/024.320

L9 ANSWER 17 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:130010 USPATFULL
TITLE: Nucleic acid and amino acid sequences relating to Acinetobacter baumannii for diagnostics and therapeutics
INVENTOR(S): Breton, Gary, Marlborough, MA, United States
Bush, David, Somerville, MA, United States
PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6562958	B1	20030513	
APPLICATION INFO.:	US 1999-328352		19990604	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-88701P	19980609 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Borin, Michael
LEGAL REPRESENTATIVE: Genome Therapeutics Corporation
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 16618
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides isolated polypeptide and nucleic acid sequences derived from Acinetobacter mirabilis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 536/023.700
INCLS: 536/023.100
NCL NCLM: 536/023.700
NCLS: 536/023.100

L9 ANSWER 18 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2002:343879 USPATFULL
TITLE: Novel Polynucleotides
INVENTOR(S): Nakagawa, Satoshi, Tokyo, JAPAN
Mizoguchi, Hiroshi, Tokyo, JAPAN
Ando, Seiko, Tokyo, JAPAN
Hayashi, Mikiro, Tokyo, JAPAN
Ochiai, Keiko, Tokyo, JAPAN
Yokoi, Haruhiko, Tokyo, JAPAN
Tateishi, Naoko, Tokyo, JAPAN
Senoh, Akihiro, Tokyo, JAPAN
Ikeda, Masato, Tokyo, JAPAN
Ozaki, Akio, Hofu-shi, JAPAN

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002197605	A1	20021226	
APPLICATION INFO.:	US 2000-738626	A1	20001218	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-377484	19991216
	JP 2000-159162	20000407
	JP 2000-280988	20000803

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA, 22201
NUMBER OF CLAIMS: 68
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 13673
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel polynucleotides derived from microorganisms belonging to coryneform bacteria and fragments thereof, polypeptides encoded by the polynucleotides and fragments thereof, polynucleotide arrays comprising the polynucleotides and fragments thereof, recording media in which the nucleotide sequences of the polynucleotide and fragments thereof have been recorded which are readable in a computer, and use of them.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 435/006.000
INCLS: 435/091.200; 435/287.200
NCL NCLM: 435/006.000
NCLS: 435/091.200; 435/287.200

L9 ANSWER 19 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2002:32536 USPATFULL
TITLE: Compositions and methods for in vivo delivery of polynucleotide-based therapeutics
INVENTOR(S): Manthorpe, Marston, San Diego, CA, UNITED STATES
Hartikka, Jukka, San Diego, CA, UNITED STATES
Sukhu, Loretta, San Diego, CA, UNITED STATES
PATENT ASSIGNEE(S): Vical Incorporated, San Diego, CA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002019358	A1	20020214
APPLICATION INFO.:	US 2001-839574	A1	20010423 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-198823P	20000421 (60)
	US 2000-253153P	20001128 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., SUITE 600, WASHINGTON, DC, 20005-3934
NUMBER OF CLAIMS: 163
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 29 Drawing Page(s)
LINE COUNT: 4605
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to pharmaceutical compositions and methods to improve expression of exogenous polypeptides into vertebrate cells in vivo, utilizing delivery of polynucleotides encoding such polypeptides. More particularly, the present invention provides the use of salts, in particular sodium and potassium salts of phosphate, in aqueous solution, and auxiliary agents, in particular detergents and surfactants, in pharmaceutical compositions and methods useful for direct polynucleotide-based polypeptide delivery into the cells of vertebrates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
INCL INCLM: 514/044.000
NCL NCLM: 514/044.000

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, USPATFULL' ENTERED AT 09:58:41 ON 04 FEB 2005)

L10	4314	S ("ODONNEL M"? OR "O DONNELL M"?)/AU
L11	194	S "BRUCK I"?/AU
L12	20376	S "ZHANG D"?/AU
L13	370	S "WHIPPLE R"?/AU
L14	2	S L10 AND L11 AND L12 AND L13
L15	71	S L10 AND (L11 OR L12 OR L13)
L16	2	S L11 AND (L12 OR L13)
L17	6	S L12 AND L13
L18	29	S (L10 OR L11 OR L12 OR L13 OR L15) AND (L1 OR L5)
L19	31	S L14 OR L16 OR L17 OR L18
L20	20	DUP REM L19 (11 DUPLICATES REMOVED)

Author (s)

L20 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2004:162335 CAPLUS
DOCUMENT NUMBER: 140:212976
TITLE: Identification and cloning of Thermotoga maritima deoxyribonucleate nucleotidyltransferase III δ' subunit
INVENTOR(S): **O'donnell, Michael E.**; Yuzhakov, Alexander; Yurieva, Olga; Jeruzalmi, David; **Bruck, Irina**; Kuriyan, John
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 245 pp., Cont. of U.S. Ser. No.

716,964.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004038290	A1	20040226	US 2003-671419		20030925
US 2004043414	A1	20040304	US 2003-670844		20030925
US 2004043415	A1	20040304	US 2003-671134		20030925
US 2004106137	A1	20040603	US 2003-670817		20030925
US 2004197796	A1	20041007	US 2003-671207		20030925
US 2004048309	A1	20040311	US 2003-673098		20030926
US 2004077012	A1	20040422	US 2003-672638		20030926
US 2004081995	A1	20040429	US 2003-673127		20030926
US 2004110210	A1	20040610	US 2003-673119		20030926
PRIORITY APPLN. INFO.:			US 1997-43202P	P	19970408
			US 1998-57416	B1	19980408
			US 2000-642218	A2	20000818
			US 2000-716964	A1	20001121

AB The present invention relates to identification and cloning of genes encoding DNA polymerase III subunits of thermophiles. In particular, it provides identification and cloning of DNA polymerase III δ'subunit of Thermotoga maritima for use in PCR or primer extension.

L20 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2004:162334 CAPLUS
DOCUMENT NUMBER: 140:231417
TITLE: Identification and cloning of DNA polymerase III δ'subunit of Bacillus stearothermophilus
INVENTOR(S): **O'donnell, Michael E.**; Yuzhakov, Alexander; Yurieva, Olga; Jeruzalmi, David; **Bruck, Irina**; Kuriyan, John
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 245 pp., Cont. of U.S. Ser. No. 716,964.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004038289	A1	20040226	US 2003-671403		20030925
US 2004043414	A1	20040304	US 2003-670844		20030925
US 2004043415	A1	20040304	US 2003-671134		20030925
US 2004106137	A1	20040603	US 2003-670817		20030925
US 2004197796	A1	20041007	US 2003-671207		20030925
US 2004048309	A1	20040311	US 2003-673098		20030926
US 2004077012	A1	20040422	US 2003-672638		20030926
US 2004081995	A1	20040429	US 2003-673127		20030926
US 2004110210	A1	20040610	US 2003-673119		20030926
PRIORITY APPLN. INFO.:			US 1997-43202P	P	19970408

	US 1998-57416	B1 19980408
	US 2000-642218	A2 20000818
	US 2000-716964	A1 20001121

AB The present invention relates to identification and cloning of genes encoding DNA polymerase III subunits of thermophiles. In particular, it provides identification and cloning of DNA polymerase III δ'subunit of Bacillus stearothermophilus for use in PCR or primer extension.

L20 ANSWER 3 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:254270 USPATFULL

TITLE: Nucleic acid encoding bacillus stearothermophilus beta polymerase subunit

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-On-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004197796	A1	20041007
APPLICATION INFO.:	US 2003-671207	A1	20030925 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 9518
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 4 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:144546 USPATFULL
TITLE: Bacillus stearothermophilus SSB protein and use thereof
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004110210	A1	20040610
APPLICATION INFO.:	US 2003-673119	A1	20030926 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 9522
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 5 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:138964 USPATFULL
TITLE: Nucleic acid encoding bacillus stearothermophilus SSB protein
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES

Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004106137	A1	20040603
APPLICATION INFO.:	US 2003-670817	A1	20030925 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 9513
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polyrnerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 6 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:107595 USPATFULL
TITLE: Bacillus stearothermophilus beta polymerase subunit and use thereof
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, New York, NY, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE

PATENT INFORMATION: US 2004081995 A1 20040429
APPLICATION INFO.: US 2003-673127 A1 20030926 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 9515
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 7 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:101150 USPATFULL
TITLE: Bacillus stearothermophilus polc polymerase subunit and use thereof
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004077012	A1	20040422
APPLICATION INFO.:	US 2003-672638	A1	20030926 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 9511
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 8 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:63791 USPATFULL
TITLE: Thermotoga maritima delta prime polymerase subunit and use thereof
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Riverdale, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004048309	A1	20040311
APPLICATION INFO.:	US 2003-673098	A1	20030926 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051,

Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 8502
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 9 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:57413 USPATFULL
TITLE: Nucleic acid encoding aquifex aeolicus delta prime polymerase subunit
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004043415	A1	20040304
APPLICATION INFO.:	US 2003-671134	A1	20030925 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 9517
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to an isolated DNA molecule from a

thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 10 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2004:57412 USPATFULL
TITLE: Nucleic acid encoding bacillus stearothermophilus tau polymerase subunit
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on- Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004043414	A1	20040304
APPLICATION INFO.:	US 2003-670844	A1	20030925 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 9513
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by

transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 11 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE 3
ACCESSION NUMBER: 2003-829557 [77] WPIDS
CROSS REFERENCE: 1999-590685 [50]
DOC. NO. CPI: C2003-233646
TITLE: New DNA replication proteins (i.e. subunits of the Staphylococcus aureus DNA polymerase III enzyme) and genes, useful in drug discovery to screen large libraries of chemicals for identification of compounds with antibiotic activity.
DERWENT CLASS: B04 D16
INVENTOR(S): O'DONNELL, M E; **WHIPPLE, R; ZHANG, D**
PATENT ASSIGNEE(S): (ODON-I) O'DONNELL M E; (WHIP-I) WHIPPLE R; (ZHAN-I) ZHANG D
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003129633	A1	20030710	(200377)*		69

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003129633	A1 Provisional	US 1998-74572P	19980213
	Provisional	US 1998-93727P	19980722
	Cont of	US 1999-235245	19990122
		US 2002-282287	20021028

PRIORITY APPLN. INFO: US 2002-282287 20021028; US 1998-74572P 19980213; US 1998-93727P 19980722; US 1999-235245 19990122
AN 2003-829557 [77] WPIDS
CR 1999-590685 [50]
AB US2003129633 A UPAB: 20031128
NOVELTY - An isolated polypeptide, which comprises at least one functionally active subunit of a Staphylococcus aureus DNA polymerase III enzyme, is new. The subunit comprises a 573 residue dnaE amino acid sequence, a 566 residue dnaX amino acid sequence and/or a 457 residue dnaB amino acid sequence, all given in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) isolated nucleic acid molecules encoding the novel subunit polypeptide or polypeptide sequence, where the nucleic acid is an isolated Staphylococcus DNA molecule encoding the dnaE, dnaX or dnaB protein or polypeptide;

(2) expression systems containing any of the DNA molecules of (1);

and

(3) host cells transformed with the DNA molecules of (1).

USE - The proteins and nucleic acids replicate the chromosome of Gram positive bacteria, and are useful in drug discovery to screen large libraries of chemicals for identification of compounds with antibiotic activity.

Dwg.0/11

L20 ANSWER 12 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:237815 USPATFULL
TITLE:	Methods for amplifying and sequencing nucleic acid molecules using a three component polymerase
INVENTOR(S):	**O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003165972	A1	20030904
APPLICATION INFO.:	US 2003-395467	A1	20030321 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-325067, filed on 3 Jun 1999, GRANTED, Pat. No. US 6555349 Continuation-in-part of Ser. No. US 1997-828323, filed on 28 Mar 1997, ABANDONED Continuation of Ser. No. US 1994-279058, filed on 22 Jul 1994, GRANTED, Pat. No. US 5668004 Continuation-in-part of Ser. No. US 1992-826926, filed on 24 Jan 1992, ABANDONED Division of Ser. No. US 1996-696651, filed on 14 Aug 1996, ABANDONED Continuation of Ser. No. US 1994-298945, filed on 31 Aug 1994, GRANTED, Pat. No. US 5583026

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	Michael L. Goldman, NIXON PEABODY LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051
NUMBER OF CLAIMS:	19
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	9 Drawing Page(s)
LINE COUNT:	1544

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a method for amplifying or sequencing a nucleic acid molecule with a three component polymerase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 13 OF 20 USPATFULL on STN

ACCESSION NUMBER:	2003:115737 USPATFULL
TITLE:	Methods for amplifying and sequencing nucleic acid molecules using a three component polymerase
INVENTOR(S):	**O'Donnell, Michael E.**, Hastings-on-Hudson, NY, United States
PATENT ASSIGNEE(S):	Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation) The Rockefeller University, New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION: US 6555349 B1 20030429
APPLICATION INFO.: US 1999-325067 19990603 (9)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-828323, filed on 28 Mar 1997 Continuation of Ser. No. US 1994-279058, filed on 22 Jul 1994, now patented, Pat. No. US 5668004 Continuation-in-part of Ser. No. US 1993-826926, filed on 22 Jan 1993, now abandoned Continuation-in-part of Ser. No. US 325067 Continuation-in-part of Ser. No. US 1999-282917, filed on 31 Mar 1999, now patented, Pat. No. US 6221642 Division of Ser. No. US 1996-696651, filed on 14 Aug 1996 Continuation of Ser. No. US 1994-298945, filed on 31 Aug 1994, now patented, Pat. No. US 5583026
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Siew, Jeffrey
LEGAL REPRESENTATIVE: Nixon Peabody LLP
NUMBER OF CLAIMS: 42
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 1755
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is directed to a method for amplifying or sequencing a nucleic acid molecule with a three component polymerase comprising a DNA polymerase component, a sliding clamp component, and a clamp loader component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2002:371330 CAPLUS
DOCUMENT NUMBER: 137:274946
TITLE: Analysis of a multicomponent thermostable DNA polymerase III replicase from an extreme thermophile
AUTHOR(S): **Bruck, Irina**; Yuzhakov, Alexander; Yurieva, Olga; Jeruzalmi, David; Skangalis, Maija; Kuriyan, John; **O'Donnell, Mike**
CORPORATE SOURCE: Howard Hughes Medical Institute, New York, NY, 10021, USA
SOURCE: Journal of Biological Chemistry (2002), 277(19), 17334-17348
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This report takes a proteomic/genomic approach to characterize the DNA polymerase III replication apparatus of the extreme thermophile, Aquifex aeolicus. Genes (dnaX, holA, and holB) encoding the subunits required for clamp loading activity (τ, δ, and δ') were identified. The dnaX gene produces only the full-length product, τ, and therefore differs from Escherichia coli dnaX that produces two proteins (γ and τ). Nonetheless, the A. aeolicus proteins form a τδδ' complex. The **dnaN** gene encoding the β clamp was identified, and the τδδ' complex is active in loading β onto DNA. A. aeolicus contains one dnaE homolog, encoding the

α subunit of DNA polymerase III. Like E. coli, A. aeolicus α and τ interact, although the interaction is not as tight as the α-τ contact in E. coli. In addition, the A. aeolicus homolog to dnaQ, encoding the ε proofreading 3'-5'-exonuclease, interacts with α but does not form a stable α·ε complex, suggesting a need for a brace or bridging protein to tightly couple the polymerase and exonuclease in this system. Despite these differences to the E. coli system, the A. aeolicus proteins function to yield a robust replicase that retains significant activity at 90°. Similarities and differences between the A. aeolicus and E. coli pol III systems are discussed, as is application of thermostable pol III to biotechnol.

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2001:101168 CAPLUS
DOCUMENT NUMBER: 134:143863
TITLE: DNA replication proteins of Gram-positive bacteria and their use to screen for chemical inhibitors
INVENTOR(S): **O'donnell, Michael E.; Bruck, Irina ; Zhang, Dan; Whipple, Richard**
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: PCT Int. Appl., 238 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001009164	A2	20010208	WO 2000-US20666		20000728
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
AU 2000067499	A5	20010219	AU 2000-67499		20000728
US 2003129633	A1	20030710	US 2002-282287		20021028
PRIORITY APPLN. INFO.:			US 1999-235245	A	19990122
			US 1999-146178P	P	19990729
			US 1998-74522P	P	19980127
			US 1998-93727P	P	19980722
			WO 2000-US20666	W	20000728

AB The present invention relates to α-large, α-small, δ, δ', τ, β, SSB, DnaG, and DnaB and (polC, dnaE, holA, holB, dnaX, **dnaN**, ssb, dnaG, dnaB) genes encoding them from Gram pos. bacteria, preferably Streptococcus pyogenes and Staphylococcus aureus. The individual genes and proteins or polypeptides are useful in identification of compds. with antibiotic activity. Thus, the structure and mechanism of the chromosomal replicase of S. pyogenes and S. aureus have been elucidated. These DNA polymerases use a sliding clamp (the **dnaN**-encoded β subunit) and clamp loader (the dnaX-encoded

τ subunit). The clamp and clamp loader components of Gram-neg. cells could be exchanged for those of Gram-pos. cells.

L20 ANSWER 16 OF 20 USPATFULL on STN
ACCESSION NUMBER: 2001:59664 USPATFULL
TITLE: Process for reconstituting the polymerase III* and other subassemblies of E. coli DNA polymerase III holoenzyme from peptide subunits
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, United States
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6221642	B1	20010424
APPLICATION INFO.:	US 1999-282917		19990331 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1996-696651, filed on 14 Aug 1996, now abandoned Continuation of Ser. No. US 1994-298945, filed on 31 Aug 1994, now patented, Pat. No. US 5583026
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Weber, Jon P.
LEGAL REPRESENTATIVE: Nixon Peabody LLP
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 29 Drawing Figure(s); 14 Drawing Page(s)
LINE COUNT: 1890
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The process of the invention provides for the reconstitution of the polymerase III* subassembly, Pol III*, of E. coli DNA polymerase III holoenzyme from substantially pure peptide subunits. In the first of two general schemes in which the subunits are added in a specified order, γ and τ are premixed before addition of δ and δ'. In the second general scheme, δ' is first assembled onto γ (or τ); then the excess δ' is removed before adding τ (or γ), following which δ is added. Reconstituted Pol III* had the same subunit composition as purified natural Pol III*, as well as similar activity. Other smaller subassemblies of the polymerase III holoenzyme may also be reconstituted by the process of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
ACCESSION NUMBER: 1999:673058 CAPLUS
DOCUMENT NUMBER: 131:319658
TITLE: DNA polymerase holoenzyme III derived from thermophilic organisms that functions as a chromosomal replicase, and the genes encoding its subunits
INVENTOR(S): Yurieva, Olga; Kuriyan, John; **O'Donnell, Michael E.**; Jeruzalmi, David
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: PCT Int. Appl., 156 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9953074	A1	19991021	WO 1998-US7070	19980409
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9871057	A1	19991101	AU 1998-71057	19980409
PRIORITY APPLN. INFO.:			WO 1998-US7070 A	19980409

AB A DNA Polymerase has been identified in a thermophile that functions as a chromosomal replicase. The specific enzyme is a holoenzyme III that has been identified in Thermus thermophilus, and corresponds to Polymerase III in Escherichia coli. The genes and the polypeptides corresponding to T. thermophilus γ, τ, ε, α, and β subunits that they encode are disclosed, as are probes, vectors, methods of preparation and the methods of use. The enzymes of the present invention and their components are particularly well suited for use in procedures for the preparation of DNA, such as PCR, because of the speed and accuracy that they are able to achieve.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7
ACCESSION NUMBER: 1999:487306 CAPLUS
DOCUMENT NUMBER: 131:113137
TITLE: DNA replication proteins of gram positive bacteria and their use to screen for chemical inhibitors
INVENTOR(S): **O'Donnell, Michael E.; Zhang, Dan; Whipple, Richard**
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: PCT Int. Appl., 132 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937661	A1	19990729	WO 1999-US1547	19990125
W: AU, CA, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2318574	AA	19990729	CA 1999-2318574	19990125
AU 9923416	A1	19990809	AU 1999-23416	19990125
EP 1056763	A1	20001206	EP 1999-903377	19990125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

US 2003129633 A1 20030710 US 2002-282287 20021028
PRIORITY APPLN. INFO.: US 1998-74522P P 19980127
US 1998-93727P P 19980722
US 1999-235245 B1 19990122
WO 1999-US1547 W 19990125

AB The duplex DNA of chromosomes is replicated in a multicomponent process. A helicase unwinds the DNA, a replicase synthesizes new DNA, and primase repeatedly synthesizes new primed starts on the lagging strand. The present invention is directed to the genes from gram-pos. bacterium encoding these proteins, and their characterization. Gene sequences are provided for the dnaE (α-subunit), dnaX (gamma/tau subunit), dnaB (helicase), polC (DNA polymerase III-L), **dnaN** (β-subunit), and dnaG (primase) genes from Staphylococcus aureus. The invention dets. that the replicase of Staphylococcus operates as a 3-component system in which a clamp loader enzyme assembles a sliding clamp protein onto DNA. The sliding clamp then binds the DNA polymerase III holoenzyme making it highly efficient. The invention identifies two DNA polymerase III enzymes in gram-pos. bacterium, each of which operate with the clamp and clamp loader, to extend a single primed site around a long (>5 kb) single-stranded DNA template. These replication proteins can be utilized in a variety of assays to screen chemical compound libraries for an antibiotic compound

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8
ACCESSION NUMBER: 1998:682540 CAPLUS
DOCUMENT NUMBER: 129:299056
TITLE: A DNA polymerase III homolog of the thermophilic bacterium Thermus thermophilus involved in chromosomal replication
INVENTOR(S): Yurieva, Olga; Kuriyan, John; **O'donnell, Michael E.**; Jeruzalmi, David
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: PCT Int. Appl., 154 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9845452	A2	19981015	WO 1998-US6921	19980408
WO 9845452	A3	19981217		
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9876839	A1	19981030	AU 1998-76839	19980408
EP 983365	A1	20000308	EP 1998-924742	19980408
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI
PRIORITY APPLN. INFO.: US 1997-823407 A 19970408
WO 1998-US6921 W 19980408

AB A DNA polymerase holoenzyme III identified in Thermus thermophilus and that corresponds to DNA polymerase III of Escherichia coli is described for use in primer-mediated amplification of DNA. In particular, the clamp structure of DNA polymerase III can be used to extend a primer over a long stretch of single-stranded DNA. The enzyme may be obtained from a range of known thermophilic microorganisms. Genes for five subunits (α, β, γ, ε, and τ) of the T. thermophilus holoenzyme are cloned and expressed. The enzyme is particularly well suited for use in procedures for the preparation of DNA, such as PCR, because of the speed and accuracy that they are able to achieve. The dnaX gene of T. thermophilus was cloned using PCR with primers derived from conserved sequences of other known dnaX genes to generate a probe to screen an XbaI bank. The γ and τ subunits encoded by the dnaX gene were manufactured in Escherichia coli using the the pET expression system and shown to have an ATPase activity. The two subunits were synthesized from a single gene by efficient ribosomal frameshifting. Conserved sequence-derived primers were used to clone fragments of the other genes for subunits of the enzyme and these were extended to obtain full-length sequences by standard methods.

L20 ANSWER 20 OF 20 USPATFULL on STN
ACCESSION NUMBER: 96:113822 USPATFULL
TITLE: Process for reconstituting the polymerase III* and other subassemblies of E. coli DNA polymerase III holoenzyme from peptide subunits
INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, United States
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5583026		19961210	
APPLICATION INFO.:	US 1994-298945		19940831	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wityshyn, Michael G.
ASSISTANT EXAMINER: Weber, Jon P.
LEGAL REPRESENTATIVE: Nixon, Hargrave, Devans & Doyle
NUMBER OF CLAIMS: 53
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 29 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 2275
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The process of the invention provides for the reconstitution of the polymerase III* subassembly, Pol III*, of E. coli DNA polymerase III holoenzyme from substantially pure peptide subunits. In the first of two general schemes in which the subunits are added in a specified order, γ and τ are premixed before addition of δ and δ'. In the second general scheme, δ' is first assembled onto γ (or τ); then the excess δ' is removed before adding τ (or γ), following which δ is added. Reconstituted Pol III* had the same subunit composition as purified natural Pol III*, as well as

similar activity. Other smaller subassemblies of the polymerase III holoenzyme may also be reconstituted by the process of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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Searcher : Shears 571-272-2528